



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

March 4, 2011

Northwest Regional Office
8380 Louisiana Street
Merrillville, Indiana 46410
(219) 757-0265
Toll Free (888) 209-8892
Fax (219) 757-0267
www.idem.IN.gov

VIA CERTIFIED MAIL 7190 0005 2710 0011 9667

Mr. Robert H. Lange
U. S. Steel, Gary Works
1 North Broadway
Gary, IN 46402

Dear Mr. Lange:

RE: Referral to USEPA, Region 5
U.S. Steel, Gary Works
Plant ID Number: 089-00121
Gary, Lake County

The Indiana Department of Environmental Management (IDEM) has received and reviewed the fourth quarter deviation and compliance monitoring report for 2010, submitted by United States Steel Corporation – Gary Works. This report identified the following deviations:

1. Permit Conditions D.2.4 and D.2.5: On October 22, 2010, the Permittee exceeded the allowable limit of having visible emissions from no more than five percent (5%) of the total off take piping on No. 2 coke oven battery.
2. Permit Conditions D.8.1 and D.8.15: On December 11, 2010, the Permittee failed to operate the south gas cleaning system at the No.1 Basic Oxygen Furnace according to a written operation and maintenance plan.

In addition to the above, US Steel – Gary Works submitted a Emergency Occurrence Report for a deviation which occurred on November 24, 2010. The allowable limit of twenty percent (20%) in any one six minute averaging period on No.2, No.5, and No.7 coke oven batteries was exceeded. This event was determined to qualify as an emergency.

These matters have been referred to USEPA, Region 5 for appropriate action. Please direct any response to this letter and any questions to Dave Sampias at (219) 757-0291.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. Robert Simmons" followed by "for JRS". The signature is stylized with a large, looped initial "J".

J. Robert Simmons
Deputy Director
Northwest Regional Office

JRS/dcs
ACES No. 126761
cc: File

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: U.S. Steel – Gary Works
Source Address: One North Broadway, Gary, Indiana 46402
Mailing Address: One North Broadway, Gary, Indiana 46402
Part 70 Permit No.: T089-7663-00121

Months: October 1 to December 31 Year: 2010

Page 1 of 1

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input checked="" type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p>Permit Requirement (specify permit condition #): D.8.15, 40 CFR Subpart FFFFF 63.7800(b)</p>	
<p>Date of Deviation: 12/11/10</p>	<p>Duration of Deviation: N/A</p>
<p>Number of Deviations: 6</p>	
<p>Probable Cause of Deviation: Low damper differential pressure of south venturi scrubber. During this time 6 heats were processed on the South Gas Cleaning system.</p>	
<p>Response Steps Taken: Venturi will be repaired with new cylinders and mechanical alignment</p>	

Form Completed By: Jon P. Michael
Title/Position: Division Manager, Steel Producing South
Date: January 26, 2011
Phone: 219.888.4803

Attach a signed certification to complete this report.



United States Steel Corporation
Gary Works
One North Broadway
Gary, IN 46402-3199

089-00121

NWRO

January 26, 2011

Certified Mail
Return Receipt Requested

Dave Cline
Indiana Department of Environmental Management
Office of Air Quality
Mail Code 61-50
100 North Senate Avenue
Indianapolis, IN 46204-2251

RECEIVED
State of Indiana
JAN 31 2011
PM 1/20
Department of Environmental Management
Office of Air Quality

**Subject: Revised Fourth (4th) Quarter 2010 Quarterly Deviation and Compliance Report for Steel Producing South
Operation Permit No. T089-7663-00121
U.S. Steel – Gary Works**

Dear Mr. Cline:

As required, the following report is enclosed and covers the reporting period of October 1, 2010 through December 31, 2010. Please replace the subject report with the one previously sent.

- Quarterly Deviation and Compliance Monitoring Report for Steel Producing South

If there are any questions concerning the enclosed, please contact me at 219.888.3387.

Sincerely,

Jim Alexander
Manager, Environmental Air Compliance

cc:

Dave Sampias (w/o diskette data)
IDEM/NWRO
8315 Virginia St, Suite 1
Merrillville, Indiana 46410

Rodney Sommerville (w/o diskette data)
Environmental Affairs Department
839 Broadway, 2nd Floor NE
Gary, Indiana 46402



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mitchell E. Daniels Jr.
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January 13, 2011

Northwest Regional Office

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Merrillville, Indiana 46410

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www.idem.IN.gov

VIA CERTIFIED MAIL 91 7190 0005 2710 0010 9002

Robert H. Lange
U. S. Steel, Gary Works
1 North Broadway
Gary, IN 46402

Re: Emergency Occurrence
U.S. Steel, Gary Works
Plant ID Number: 089-00121
Gary, Lake County

Dear Mr. Lange:

The Indiana Department of Environmental Management (IDEM) received your Emergency Occurrence Report dated November 24, 2010. This report documents a deviation of permit condition C.1 (a) and (b) in permit T089-7663-00121.

The IDEM concurs that this event qualifies as an emergency as defined in 326 IAC 2-7-1(12) and at this time will not pursue legal action.

If you have any questions concerning this letter, please contact Mr. Dave Sampias at 219/757-0291.

Sincerely,

J. Robert Simmons
Deputy Director
Northwest Regional Office

JRS/ds

cc: Dave Sampias, NWRO

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

EMERGENCY OCCURRENCE REPORT

Source Name: U.S. Steel - Gary Works
Source Address: One North Broadway, Gary, IN 46402
Mailing Address: One North Broadway, Gary, IN 46402
Part 70 Permit No.: T089-7663-00121

This form consists of 2 pages

Page 1 of 2

This is an emergency as defined in 326 IAC 2-7-1(12)

The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Gary Works Coking Operations/Coke Oven Batteries No. 2, 5, 7.

Control Equipment: *none*

Permit Condition or Operation Limitation in Permit: *C.1(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.*

C.1(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Description of the Emergency:

Loss of control suction to coke oven batteries

Describe the cause of the Emergency:

Catastrophic failure of rotating equipment on operating coke oven gas booster that resulted in a loss of suction to the coke oven batteries.

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started: <i>November 24, 2010 at 11:48 am</i>
Date/Time Emergency was corrected: <i>November 24, 2010 at 5:00 pm</i>
Was the facility being properly operated at the time of the emergency? <input checked="" type="radio"/> Y <input type="radio"/> N Describe:
Type of Pollutants Emitted: TSP, <u>PM-10</u> , SO ₂ , VOC, NO _x , CO, Pb, other: <u>Opacity</u>
Estimated amount of pollutant(s) emitted during emergency: <i>No 2 COB - one (1) 20% - six (6) min average exceedances No 5 COB - forty one (41) 20% - six (6) min average exceedances No 7 COB - ten (10) 20% - six (6) min average and one (1) 60% for 15 minutes exceedances</i>
Describe the steps taken to mitigate the problem: <i>No. 5 Booster was online and experienced a catastrophic failure and battery suction was lost. All battery production (pushing and charging) was halted. No. 4 Booster was put into service and normal battery operations were restored.</i>
Describe the corrective actions/response steps taken: <i>See above</i>
Describe the measures taken to minimize emissions: <i>All battery production activities was halted until battery suction was returned to normal.</i>
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: <i>N/A - see above</i>

Form Completed by: Jim Alexander
Title / Position: Air Compliance Manager
Date: 11/24/2010
Phone: 219.888.3387

A certification is not required for this report.



INSPECTION SUMMARY

DATE 10-22-10 INSPECTOR Swallow SHIFT D
 PLANT: CITIZENS GAS (Indianapolis) ☐ MITTAL (Burns Harbor) ☐ US STEEL (Gary) ☒
 BATTERY NO.: 1 ☐ 2 ☒ 5 ☐ 7 ☐ E ☐ H ☐

Inspection Times		Inspection Data		Percent Leakage Calculations	
Start	Finish				
<u>754</u>	<u>800</u>	# Ovens Out of Service = <u>5</u>	PS Doors Leaking = <u>0</u>	$\frac{\text{No. Door Leaks}}{\text{No. Doors Observed}} \times 100 = \text{Percent Leakage}$	
		# Doors Not Observed = <u>0</u>	CS Doors Leaking = <u>4</u>	<u>3.85</u> % Leakage	
		Total # Doors Obs. = <u>104</u>	Total Leaking Doors = <u>4</u>	Door Inspection Limit _____ % for 30 day rolling average	
				PRELIM. COMPLIANCE STATUS: <input type="checkbox"/> IN <input type="checkbox"/> OUT	
<u>857</u>	<u>955</u>	# Ovens Out of Service = <u>5</u>	Total Leaking Lids = <u>0</u>	$\frac{\text{No. Lid Leaks}}{\text{No. Lids Observed}} \times 100 = \text{Percent Leakage}$	
		# Lids Not Observed = <u>24</u>		<u>0</u> % Leakage	
		# Lids Observed = <u>154</u>		Lid Inspection Limit _____ % for 30 day rolling average	
				PRELIM. COMPLIANCE STATUS: <input type="checkbox"/> IN <input type="checkbox"/> OUT	
<u>955</u>	<u>958</u>	# Ovens Out of Service = <u>5</u>	Total Leaking Offtakes = <u>6</u>	$\frac{\text{No. Offtake Leaks}}{\text{No. Offtakes Observed}} \times 100 = \text{Percent Leakage}$	
		# Offtakes Not Observed = <u>12</u>		<u>6.52</u> % Leakage	
		# Offtakes Observed = <u>92</u>		Offtake Inspection Limit _____ % for 30 day rolling average	
				PRELIM. COMPLIANCE STATUS: <input type="checkbox"/> IN <input type="checkbox"/> OUT	
<u>1020</u>	<u>1205</u>	Seconds Per Charge / Oven No.	Total Seconds for Five Charges = <u>51.5</u>	Charging Inspection	
		1. <u>9.5</u> / <u>22</u>		Limit = 60 Second for five charges	
		2. <u>9.0</u> / <u>24</u>		(Log for 30 day rolling average)	
		3. <u>11.0</u> / <u>26</u>	6. _____ / _____		
		4. <u>11.5</u> / <u>28</u>			
		5. <u>10.5</u> / <u>32</u>			
				PRELIM. COMPLIANCE STATUS: <input type="checkbox"/> IN <input type="checkbox"/> OUT	

**KERAMIDA**ENVIRONMENT • HEALTH • SAFETY
AIR • LAND • WATER • WASTE**TOPSIDE INSPECTION (LIDS & OFFTAKES)**DATE 10-22-10 INSPECTOR BwallwPLANT: CITIZENS GAS (Indianapolis) ☐ MITTAL (Burns Harbor) ☐ US STEEL (Gary) ☒BATTERY NO.: 1 ☐ 2 ☒ 5 ☐ 7 ☐ E ☐ H ☐

Oven No.	OFFTAKES		LIDS					Oven No.	OFFTAKES		LIDS					Oven No.	OFFTAKES		LIDS				
	Push Side	Coke Side	1	2	3	4	5		Push Side	Coke Side	1	2	3	4	5		Push Side	Coke Side	1	2	3	4	5
1								32								63							
2								33								64							
3								34								65							
4								35								66							
5								36								67							
6								37								68							
7								38								69							
8								39								70							
9								40								71							
10	03							41								72							
11	1							42								73							
12								43		X						74							
13								44								75							
14	03							45								76							
15	1	0						46								77							
16								47								78							
17								48		X						79							
18								49		X						80							
19								50								81							
20								51		X						82							
21								52								83							
22	0	0						53								84							
23								54								85							
24	0	0						55								86							
25								56								87							
26	0	0						57	X	X						88							
27								58								89							
28	0	0						59								90							
29								60								91							
30	0	0						61								92							
31								62								93							

Lids Traverse: Start Time 954 Stop Time 955Total Number of Ovens 57 Maximum Time (sec) 228 Actual Time 87 Valid Run ☒ Y ☐ NOvens Out of Service 5 Offtakes Traverse: Start Time 955 Stop Time 958Maximum Time (sec) 145 Actual Time 145 Valid Run ☒ Y ☐ N

OFFTAKES		LIDS		Legend	
Total No. of Offtakes	<u>114</u>	Total No. of Lids	<u>228</u>	X = Leak	
No. of Offtakes Not Observed	<u>12</u>	No. of Lids Not Observed	<u>24</u>	OOS = Out-Of-Service	
Total No. of Offtakes Observed	<u>92</u>	Total No. of Lids Observed	<u>194</u>	O = Open	
No. of Offtakes Leaking	<u>6</u>	No. of Lids Leaking	<u>0</u>		

Comments: _____